

In re Patent Application of:
PROCTOR, JR.
Serial No. **09/997,733**
Filing Date: **November 29, 2001**

In the Drawings:

Attached are two (2) replacement drawing sheets. The changes made to the drawings are explained in the remarks section below.

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REMARKS

The Applicant would like to thank the Examiner for the thorough examination of the present application. FIG. 1 has been modified to include the missing reference numerals as helpfully noted by the Examiner. In addition, FIG. 3 has been modified to correct a misspelled word. The specification has been amended to correct the minor informality as also helpfully noted by the Examiner, and to also correct minor grammatical errors.

Independent Claims 1 and 18 have been amended to more clearly define the present invention over the cited prior art references. Certain dependent claims have also been amended for consistency. The informalities in dependent Claims 6 and 22 have been corrected as helpfully noted by the Examiner. Dependent Claim 13 has been cancelled. The claim amendments and arguments supporting patentability of the claims are presented in detail below.

I. The Claims Are Patentable

The Examiner rejected independent Claims 1 and 18 over the Moon et al. patent. The present invention, as recited in amended independent Claim 1, for example, is directed a method for maintaining synchronization and power control of wireless signals sent between wireless gateways. The method comprises transmitting, from a subscriber access unit to a base station processor, an idle mode signal for maintaining an idle mode connection therebetween, the idle mode signal providing synchronization with the base station processor without actively sending data thereto.

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The method further comprises receiving the idle mode signal at the base station processor, with the idle mode signal having a power level associated therewith. A power level detector in the base station processor determines the power level of the idle mode signal. The base station processor transmits a power control message indicative of a change to the power level of successive idle mode signals. At the subscriber access unit, a new power level corresponding to the power control message is computed, and the transmission power according to the new power level is adjusted.

The method further comprises transmitting a successive idle mode signal from the subscriber access unit to the base station processor at the new power level. The subscriber access unit and the base station processor maintain the idling mode connection at the power level of the power control message.

Independent Claim 1 has been amended to more clearly define the "wireless signal" or "wireless message" as "an idling mode signal." Consequently, the "idling mode signal" maintains the idle mode connection between the subscriber access unit and the base station processor. Independent Claim 1 has been further amended to recite that the idle mode signal provides synchronization with the base station processor without actively sending data thereto.

The method in accordance with the present invention advantageously allows the subscriber access units to maintain an idle mode connection with the base station processor without actively sending data, and to do so at a power level determined by the base station processor. By adjusting the power level of the idle mode signals from the subscriber

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access units, interference with adjacent subscriber access units is reduced. This in turn allows fast acquisition of additional capacity by the subscriber access units.

Independent Claim 18 is directed to a system for maintaining synchronization and power control of wireless signals sent between wireless gateways. The system comprises a base station processor and at least one subscriber access unit as defined above. Independent system Claim 18 has been amended similar to independent method Claim 1.

Referring now to the Moon et al. patent, a common power control transmission device for a base station in a CDMA communication system is provided. The common power control transmission device is used to control power of a reverse link common channel. For power control of the reverse link common channel, the base station receives a signal from a mobile station via the reverse link common channel, and transmits to the mobile station a power control command for controlling a transmission power of the reverse link common channel according to a measured strength of the received signal.

As correctly noted by the Examiner in the Moon et al. patent, synchronization is maintained between the base station and the mobile station when the reverse link includes a pilot channel. The pilot channel is used for estimating the channel condition by the base station receiver and synchronizing the transmitter with the receiver.

The Applicant respectfully submits that Moon et al. fails to disclose that the pilot channel provides synchronization with the base station processor without actively sending data thereto. Reference is directed to column 5, lines 9-14 of Moon et al. which provides:

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"With reference to FIGS. 2 through 4, there are shown schematic diagrams illustrating procedures for controlling power of a reverse link common channel during data communication between a base station and a mobile station according to first through third embodiments of the present invention, respectively."
(Emphasis added).

As highlighted above, the mobile station and the base station are exchanging data during a reverse link common channel. In sharp contrast, amended independent Claim 1 recites that an idle mode signal is transmitted from a subscriber access unit to a base station processor, wherein the idle mode signal provides synchronization with the base station processor without actively sending data thereto.

This feature of the claimed invention is supported by the Applicant's specification. In fact, providing synchronization between a subscriber access unit and a base station processor on a reverse link "without actively sending data thereto" is supported in the parent patent. The Applicant's specification is a continuation-in-part from U.S. Patent No. 6,707,804 which is a continuation of U.S. Patent No. 6,222,832. Even the '832 patent supports the claim recitation of "the idle mode signal providing synchronization with the base station processor without actively sending data thereto."

Moon et al. thus fails to disclose that the synchronization is maintained between the subscriber access unit and the base station processor "without actively sending data thereto," as recited in amended independent Claim 1.

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Therefore, it is submitted that amended independent Claim 1 is patentable over the Moon et al. patent.


Independent Claim 18 has been amended similar to amended independent Claim 1. Accordingly, it is submitted that amended independent Claim 18 is also patentable over the Moon et al. patent. In view of the patentability of the amended independent Claims 1 and 18, it is submitted that their dependent claims, which recite yet further distinguishing features of the invention, are also patentable. These dependent claims require no further discussion herein.

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CONCLUSION

In view of the amendments to the claims and the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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